

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of regenerating a remotely transmitted signal comprising a symbol stream modulated onto a carrier in accordance with a predetermined standard, the method including the steps of:
 - a) receiving the remotely transmitted signal having known characteristics;
 - b) determining frame timing of the received signal;
 - c) identifying the locations of sequences within the signal from the frame timing;
 - d) identifying the structure of the sequences;
 - e) estimating phase shift values and mean beat frequency at the locations of the sequences;
 - f) demodulating the symbol stream using the estimated phase shift values and the structure of the sequences; and
 - g) remodulating the symbol stream using the phase shift values and the mean beat frequency.
2. (Original) A method according to claim 1, wherein step f) comprises the additional step of correcting the symbol stream prior to step g).

3. (Previously Presented) A method according to claim 2, wherein the step of correcting the symbol stream incorporates substitution of symbols in the symbol stream where the symbol stream is known *a priori*.
4. (Previously Presented) A method according to claim 3, wherein step f) further comprises comparing demodulated symbols with known symbols to provide an estimate of the symbol error rate.
5. (Previously Presented) A method according to claim 4, wherein step a) includes down converting the received signal to a nominal 0Hz intermediate frequency.
6. (Currently Amended) A method according to claim 5, wherein step a) further includes ~~digitising~~ digitizing the intermediate frequency signal to provide a ~~digitised~~ digitized symbol stream in a complex signal domain.
7. (Currently Amended) A method according to claim 6, wherein step e) includes ~~estimating mean beat frequency of the signal~~, removing the estimated mean beat frequency from the signal and storing the mean beat frequency in a database.
8. (Original) A method according to claim 7, wherein step e) further includes estimating residual phase shift of the signal and storing the estimated residual phase shift of the signal in the database.
9. (Currently Amended) A method according to claim 1, wherein the sequences include one or more of training sequences, ~~synchronisation~~ synchronization signals, frequency correction bursts[, or]] and dummy bursts.

10. (Original) A method according to claim 9, wherein the training sequences include eight training sequences associated with data bursts.
11. (Original) A method according to claim 10, wherein the training sequences include a ninth training sequence associated with dummy bursts.
12. (Previously Presented) A method according to claim 11, further including the step of using training sequences and correlation peaks for multi-path compensation.
13. (Original) A method according to claim 12, wherein channel estimation of data sequences are used for multi-path compensation.
14. (Previously Presented) A method according to claim 1, wherein step f) further comprises comparing demodulated symbols with known symbols to provide an estimate of the symbol error rate.
15. (Previously Presented) A method according to claim 13, wherein step a) includes down converting the received signal to a nominal 0Hz intermediate frequency.
16. (Currently Amended) A method according to claim 15, wherein step a) further includes digitising digitizing the intermediate frequency signal to provide a digitised digitized symbol stream in a complex signal domain.
17. (Previously Presented) A method according to claim 2, wherein step f) further comprises comparing demodulated symbols with known symbols to provide an estimate of the symbol error rate.

18. (Previously Presented) A method according to claim 17, wherein step a) includes down converting the received signal to a nominal 0Hz intermediate frequency.
19. (Currently Amended) A method according to claim 18, wherein step a) further includes digitising digitizing the intermediate frequency signal to provide a digitised digitized symbol stream in a complex signal domain.
20. (New) A method of regenerating a remotely transmitted signal comprising a symbol stream modulated onto a carrier in accordance with a predetermined standard, the method including the steps of:
 - a) receiving the remotely transmitted signal having known characteristics;
 - b) determining frame timing of the received signal;
 - c) identifying the locations of training sequences within the signal from the frame timing, the training sequences including eight training sequences associated with data bursts and a ninth training sequence associated with dummy bursts;
 - d) identifying the structure of the training sequences;
 - e) estimating phase shift values at the locations of the sequences;
 - f) demodulating the symbol stream using the structure of the sequences; and
 - g) remodulating the symbol stream using the phase shift values.
21. (New) A method according to claim 20, further including the step of using training sequences and correlation peaks for multi-path compensation.

22. (New) A method according to claim 21, further including the step of using channel estimation of data sequences for multi-path compensation.